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ABSTRACT

Analytical case studies can provide a way for high school geography teachers to develop their students' interpretive skills, skills which are not fostered by the traditional teacher-centered textbook methods of geography instruction. The case study approach introduces the student to economic and cultural activities within a country or region or to the daily life of the area's peoples. This approach can also be tailored to the needs of particular groups of students. The systematic decision-making approach, which is structured and clearly sequential, is recommended for low ability students. The open approach, which places more responsibility on the students to define the problem, research it, and analyze data, is recommended for average and above average students. This approach helps students develop intake and processing skills. In acquiring these skills, the student is able to collect and analyze data, evaluate the data, predict outcomes, develop proposals, and support ideas and opinions with evidence. More importantly, the student learns to make decisions and participate in follow-up activities. (Author/IS)

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Using Case Studies as an Approach to Analytical Skills in High School Geography

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A B S T R A C T

USING CASE STUDIES AS AN APPROACH TO ANALYTICAL SKILLS IN HIGH SCHOOL GEOGRAPHY

Today's high school student studying world geography requires analytical skills to be successful in the classroom. This presentation will demonstrate to the participant how to employ the case study approach for the development of analytical skills in geographic education.

The case study approach introduces the student to economic and cultural activities within a country or region; or allows the student a glimpse at the daily lives of the people within a country or region. This approach can also be effectively used for the introduction and/or enhancement of critical skills. By utilizing this approach, the student is better equipped to employ both qualitative and quantitative analysis of the characteristics of the geographic area under study. This, in turn, enhances the development of geographic concepts.

Participants in this presentation will be given an opportunity to complete case studies developod as student activities. After sampling the development of skills using the case study approach, it will be evident that analytical skills can be developed in an interesting and task-oriented manner.

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Within the secondary geography curriculum, numerous study skills are taught. Developed systematically and sequentially within the curriculum, these skills are categorized as: 1) intake or information gathering and reading skills; 2) processing or thinking skills; and 3) expressive or communication skills. As secondary geography continues to attract the low-ability student (Manson,1981; Luchi, 1982), the development of these skills are of significant importance, especially intake and processing skills. In accquiring these skills, the geography student learns to analyze qualitative and quantitative data in order to reach conclusions, make decisions, and become involved in follow-up activities. However, acquistion of these skills must be developed within the parameters of the geography curriculum in order for them to be effective.

The need for analytical skills becomes apparent when students are asked to interpret census, economic, political, or climatic data presented in tables, charts, and graphs found in textbooks or other educational media. For the high school geography teacher a method of teaching these skills must be of primary concern. This paper will examine what is, in the opinion of this writer, the most effective means of teaching analytical skills, the case study. However, before going into a discussion of the use of case studies, a description of qualitative and quantitative data may be necessary.

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Ritt (1973) refers to qualitative data as "word data" which is usually found in more traditional sources such as textbooks, films, slides, books, tapes, or pictures and diagrams. Information gleaned from such sources is descriptive, and provides the student with an understanding of the material presented. Through the reading of these sources, the student develops intake or information gathering skills, and through the interpretation of the data presented, is able tp develop geographic concepts and generalizations. Once these have been developed, the student is better able to acquire the processing or decision-making skills necessary for follow-up activities. Quantitative data, on the other hand, is statistical or numerical data usually presented in graphs, tables, and statistical narratives. Ritt (page 67) writes that such data is:

> The census, vital statistics, public opinion polls, or election returns (that) can be used to draw inference about a given state of affairs in much the same ways as newspapers, documents, and books can.

Numerical data also provides the student with a mechanism for forming concepts and generalizations. According to Wehlage and Anderson (1972), statistical generalizations convey probabilities about relationships, and imply an understood assumption. Once the student is able to grasp the geographic concepts and generalizat ions, to include statistical generalizations developed through the interpretation of statistical data, he/she will acquire the skills necessary for follow-up activities.

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ANALYTICAL CASE STUDIES AS A MEANS OF TEACHING INTERPRETATIVE SKILLS

Depending on the ability level of their students, teaching methods vary among teachers. In secondary geography teaching methods based on textbook materials are widely used. As many geography classes are taught by non-geographers, these materials have a wide appeal as much of the work has been done by the authors and publishers with annotated editions, student workbooks, and pre-printed tests. However, such methods leave much to be desired for the teaching of interpretative skills. There are several reasons for this. First, in classes where teaching methods are based on text material, classroom activities become teacher-centered rather than student-centered. In teacher-centered classes, the teacher sets the parameters for decision making and interpretation of data based on the text material. For the low-ability or learning disabled student who requires organization and structure this maybe ideal. However, in order for students to develop skills in decision-making and data analysis, they must participate in the establishment of parameters, the formulation of problems, and follow-up activities through simulations and model building (Hajdu, 1977).

A second argument is based on textbook content. Textbooks used in secondary geography are predominately cultural-regional in their orientation. However, with a greater emphasis on the interpretation of data presented in graphs and charts, a topical orientation is better suited for the development of analytical skills. In a study of five secondary texts, Manson (1981) found

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that the topical content was exceeded by the cultural-regional content by a 40:60 ratio. In an analysis of geography texts used in Maryland high schools, Anderson found that textbooks devoted over 50 percent of their pages to cultural-regional studies. Indeed, pages devoted to topical content in one textbook was outnumbered four-to-one by the cultural-regional content. While all the textbooks in the Maryland study emphasized map, chart, and globe skills, text authors stressed description rather than analysis in the cultural-regional chapters (Anderson, Cirrincione, Kurfman, 1981). Descriptive data, while important, does not provide the data needed for analytical skills development through simulations and model building. Such data is better found in textbooks with a topical orientation (Shepherd, Cooper, and Walker, 1980; Manson, 1981).

While the advantages to using textbook-oriented teaching methods are widely acknowledged, they tend to create teacher-centered rather than student-centered classroom activities. Further, as they are based on textbooks which tend to be descriptive, they do not allow the student to develop the interpretative skills necessary for success in the secondary geography classroom. Analytical case studies on the other hand, do allow the secondary geography teacher with a means for developing his student's interpretative skills.

The case study approach is not new to secondary geography. Many of us were weaned on the High School Geography Project and its case study

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methodology both as students and teachers. Today, case studies continue to give teachers the flexibility that textbooks cannot. They also provide "realistic and interesting focal points for teaching and learning" (Hurst, Weiss, and LaSage, 1981,pg. 229). According to Singleton (1978) case studies can be reading activities, vignettes, narratives, and interpretative essays. Silverman (1981) developed case studies based on the literary works of Steinbeck, Mitchner, and other American writers. For teaching data interpretation skills, case studies can be little more than statistical data sheets or statistical data narratives. Student or teacher constructed film or slide materials can be used as case studies providing they permit the student to identify a problem, state that problem, and discuss it before reaching a conclusion (Hurst, Weiss, and LeSage).

Case studies provide two distinct advantages. Properly constructed, they can change the atmosphere in the secondary geography classroom from teacher-centered to one that is student-centered where students are motivated to participate in problem-solving activities (Hajdu). Weiss, Kinney, and Hurst (1980) found that problem solving was more effective in classrooms which enjoyed a supportive, positive atmosphere. Further, a student-centered classroom, brought about through case studies, offers the student a project and practicum oriented course of study, and encourages the student to develop processing and analytical skills (Anderson, 1984). The second

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advantage to using case studies is that they encourage more active learning (Shug, Todd, and Beery, 1984). Singleton (pg. 74) reports that the teacher, through case studies, is better able to stimulate the interest and involvement of the student. Nevertheless, there are several disadvantages to using case studies. Because most are teacher-constructed, they require considerable out of classroom work by the teacher in collecting and developing material for use in case studies. A second disadvantage is that the data used is constantly changing, requiring that the teacher keep case study material current. Finally, because of the use of current material, the teacher is frequently unable to support case studies with up to date media such as films, slides, and tapes. While the disadvantages seemingly outnumber the advantages, student interest and motivation is heightened through effective case studies. This one factor alone, I believe, far outweighs all the disadvantages.

DEVELOPING ANALYTICAL CASE STUDIES:

Materials necessary for the construction of analytical case studies are readily accessible. Much can be gleaned from the print media such as newspapers, news magazines, booklets, and phamplets. Other sources are films, slide sets, and filmstrips. Teacher and/or student constructed films, slides, and filmstrips can also be used as case studies. While the material is accessible, compilation of this material into a booklet or handout for the student does not constitute a case study. The material used must fit into the educational objectives established by the teacher, and they must be problem-solving (analytical) to be effective.

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Educational objectives used in case studies must be reflective of student abilities and curriculum goals/objectives. Singleton (pg. 76) offers the following as a checklist for developing objectives of analytical case studies:

1. What is it you want the students to learn as a result of studying (this) case?
2. What issues do you want them to confront?
3. What concepts do you want them to focus on?
4. What mood do you hope to create?
5. What skills do you want your students to sharpen?

Educational objectives should also be aimed at developing particular intake and processing skills such as qualitative and quantitative analysis.

In constructing analytical case studies the teacher is encouraged to include only enough information to arouse student interest. Extraneous material should also be injected to help students develop sorting skills. To motivate students and peak their interest, case studies should also be objective and plausible. This also helps them to relate more to the topic of the case study. The types of case studies used - reading activities, projects, model building, simulations - should be varied in order to retain interest in the various types or procedures used (Singleton, pg. 76; Weiss, Kinney, and Hurst, 1980). Analytical case studies should describe at least one problem and several alternatives that students might consider. Students should be made aware of the consequences of their decisions to include possible alternatives (Hurst, Weiss, and LeSage). Once constructed, case

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studies used for teaching analytical skills development can be introduced at anytime regardless of the unit of study, as a part of that unit, as a seperate unit, or used as a daily activity from time to time (Weiss, Kinney, and Hurst).

TYPES OF CASE STUDIES USED:

Two types of case studies are used. For the low-ability geography student the SYSTEMATIC DECISION MAKING case study is recommended. This technique allows the student, assisted by his classmates or teacher to:

1. Define the problem(s) given.
2. State the goals of the problem(s).
3. Identify alternatives.
4. Collect and analyze relevant data.
5. Evaluate each alternative to select the best one.
6. Act (on his decision).
7. Evaluate and revise as needed.

(Weiss, Kinney, and Hurst, pg. 246; after Fels, Buckles, and Johnson, 1980)

Haiju sees this process as "sequential" in that the decision(s) reached by the student are dependent on previous decisions and will be related to future decisions.

For the average and above-average geography student, the OPEN APPROACH analytical case study is recommended. In the Open Approach case study clearly defined problems and alternatives are not given. The student must delineate his/her own problem(s), establish his/her own goals, options, and consequences. The student must also list the possible alternatives as well as possible solutions. According to Hurst, et. al. the Open Approach case study helps

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to stimulate more research and follow-up activities.

Open Approach case studies are constructed in much the same way as Systematic Decision Making case studies. The major difference is that the student has a far greater responsibility for defining problems, research, analysis of data, and problem solving. The major contribution of the teacher is to keep the student from wandering outside the confines of the geography curriculum.

USING ANALYTICAL CASE STUDIES:

Because of their flexibility, analytical case studies can be used in numerous ways. These include reading activities, group work, role playing, simulations, research projects (individual or group), or study projects. Hurst , Weiss, and LeSage see them as a tool for the teacher to: 1) introduce historical, contemporary, or futuristic problems and issues; 2) develop understanding of social science, including geography, concepts and principles; 3) increase awareness of timely, important events; 4) develop and practice powerful skills; and 5) stimulate interest and active involvment (pg.229).

CONCLUSION

Today's high school student studying world geography needs analytical skills to be successful in the classroom. The case study approach introduces the student to econcomic or cultural activities within a country

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or region; or allows the student a glimpse at the daily lives of the people within a country or region. This approach can also be effectively used for introduction and/or enhancement of critical skills. By utilizing this approach, the student is better equipped to employ both qualitative and quantitative analysis of the characteristcics of the geographic area under study. This, in turn, enhances the development of geographic concepts and generalizations.

Interesting analytical case studies, either Systematic Decision Making or Open Approach, help to stimulate and motivate the secondary geography student to develop intake and processing skills. In acquiring these skills, the student is able to collect and analyze data, evaluate the data, predict outcomes, develop proposals, and support his/her ideas and opinions with evidence. More importantly, the student learns to make decisions and participate in follow-up activities.

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